

## WHAT IS CLAIMED IS:

1. A device for detecting visible fluorescence emitted from a fluorescent-labeled sample comprising:

- (a) a light source which produces incident light;
- (b) an exciter or bandpass filter through which the incident light passes to
- (c) a dichroic beamsplitter which reflects all incident light of a predetermined wavelength to a sample;
- (d) a barrier or longpass filter through which light from the beamsplitter contacts
- (e) an achromatic lens between a line of sight and the long pass filter.

2. The device according to claim 1 wherein the light source is selected from the group consisting of mercury vapor lamps, tungsten halogen lamps, xenon lamps, lasers, and combinations thereof.

3. A device for detecting visible fluorescence emitted from a fluorescent-labeled sample comprising:

- (a) a light source which produces incident light;
- (b) a light guide to transmit light from the light source to an excitation or bandpass filter;
- (c) a dichroic beamsplitter which reflects all incident light of a predetermined wavelength to a sample;
- (d) a longpass or barrier filter through which light from the beamsplitter is transmitted to a line of sight.

4. The device according to claim 3 wherein the

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light guide is a fiber optic light guide.

5. The device according to claim 3 wherein the dichroic beamsplitter and the longpass barrier filter are housed in a single fluor-cluster filter housing positioned at the tip of the light guide.

6. A method for examining a sample to detect fluorescence comprising:

contacting said sample with incident light which has been transmitted through a dichroic beamsplitter which reflects all incident light of a predetermined wavelength to the sample containing a fluorochrome; and

observing light emitted from the specimen through the beamsplitter.

7. The method according to claim 6 wherein the fluorochrome is calcein.

8. The method according to claim 6 wherein the sample is a live animal.

9. The method according to claim 8 wherein the animal is a salmon.

10. The method according to claim 8 wherein the barrier filter is located in eyeglasses.

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